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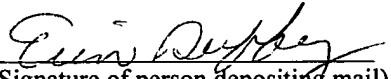
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**CERTIFICATE OF MAILING PURSUANT TO 37 C.F.R. 1.10**

In re Application of: Keim, et al.

Serial No.: 10/624,217

Filed: July 21, 2003

For: DNA FINGERPRINTING FOR CANNABIS  
SATIVA (MARIJUANA) USING SHORT  
TANDEM REPEAT (STR) MARKERS

Attorney Docket No.: 112624.00084

Group Art Unit: 1645

Examiner: Unassigned

Commissioner for Patents  
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- 1) Supplemental Information Disclosure Statement
- 2) Form PTO-1449 (5 pages)
- 3) References (32)
- 4) Return receipt postcard



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Keim *et al.*

Serial No.: 10/624,217

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**  
**PURSUANT TO 37 C.F.R. § 1.97**

U.S. Patent & Trademark Office  
P.O. Box 1450  
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Dear Sir:

Applicant hereby brings to the attention of the Examiner the documents noted on the accompanying Form PTO-1449. This Supplemental Information Disclosure Statement is being filed prior to the mailing date of a first Office Action.

Please note the information contained in this Supplemental Information Disclosure Statement was cited in a U.S. Patent Application No. 10/624,217 which was filed on July 21, 2003.

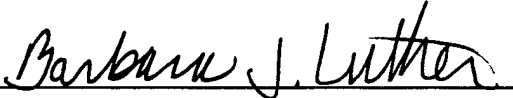
It is respectfully requested that the information cited herein be expressly considered during the prosecution of this application and made of record on any patent to issue therefrom. Inclusion of a reference on the enclosed Form PTO-1449 is not to be construed as indicating the reference is prior art. Provision of this Supplemental Information Disclosure Statement is not to be taken as evidence that a search has been conducted.

USSN: 10/624,217  
*Keim et al.*  
Information Disclosure Statement

No fee is believed due with this mailing. The Commissioner is hereby authorized to charge any cost that may be due to Deposit Account No. 17-0055.

Respectfully submitted,  
**QUARLES & BRADY STREICH LANG, LLP**

November 9, 2004

By:   
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Reg. No. 33,954

Attorney Docket No. 112624.00084  
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>			
		Application Number	10/624,217		
		Filing Date	July 21, 2003		
		First Named Inventor	Keim et al.		
		Art Unit	1645		
		Examiner Name			
Sheet	2	of	5	Attorney Docket Number	112624.00084

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	D	ADAMS, R., "Marihuana", Science Vol. 92 No. 2380 (1940) 115-119.	
	E	Anonymous, Microsat, the microsatellite distance program, Human population genetics laboratory, Department of genetics, Stanford, CA, USA, (2001).	
	F	BALDING, D., "Forensic applications of microsatellite.", Microsatellites Evolution and Applications, (1999) Oxford University Press, NY, pp. 198-210.	
	G	CARDLE, L. et al., "Computational and experimental characterization of physically clustered simple sequence repeats in plants", Genetics 156 (2000) 847-854.	
	H	CHOPRA, G.S., "Man and marijuana", Int. J. Addiction, 4 (2) (1969) 215-247.	
	I	COYLE, MILLER H. et al., "Non-human typing: methods and casework applications", Proceedings of the American Academy of Forensic Sciences, (2003) 17-22, USA. p. 20.	
	J	COYLE, MILLER H. et al., "The green revolution: botanical contributions to forensics and drug enforcement", Croatian Med. J. 42 (3) (2001) 340-345.	
	K	EMBODEN, W.A., Jr., "Ritual use of Cannabis sativa L".: P. T. Furst (Eds.), Flesh of the gods: the ritual use of hallucinogens, Praeger Publishers, 1972, pp. 214-235.	
	L	EXCOFFIER, L. et al., "Analysis of molecular variance inferred from metric distances among DNA ....", Genetics 131 (1992) pp. 479-491	
	M	FELSENSTEIN, PHYLIP (Phylogeny Inference Package) version 3.5c, Seattle, WA, USA, (1993).	

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
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	N	GIGLIANO, SINISCALOCO et al., " Ribosomal DNA analysis as a tool to identify specimens of Cannabis sativa L. of forensic interest", Sci. Justice 37(3): (1997) 171-174.	
	O	GIGLIANO, SINISCALOCO," Identification of Cannabis sativa L. using restriction profiles of the Internal Transcribed Spacer II (ITS2)", Sci. Justice 38(4): (1998) 225-230.	
	P	GIGLIANO, SINISCALOCO," Preliminary data on the usefulness of sequence in Cannabis sativa L. identification", J. Forensic Sci. 44(3): (1999) 475-477.	
	Q	GILLAN, R. et al. " Comparison of Cannabis sativa by random amplification of polymorphic DNA (RAPD) and HPLC ..", Sci. Justice 35(3): (1995) 169-177.	
	R	GILMORE, S. et al.," Short tandem repeat (STR) DNA markers are hypervariable and informative in Cannabis sativa: implications...", Forensic Sci. Int. 131 (2003) 65-74.	
	S	HANEY, A. , et al. "Quantitative variation in the chemical constituents of marihuana from stands of naturalized CAnnabis sativa l.." article, Econ. Botany 27: 193-203 (1973)	
	T	HSIEH, H.M. et al. ," A highly polymorphic STR locus in Cannabis sativa", Forensic Sci. Int. 131 (2003) 53-58.	
	U	Jagadish, V., et al., "RAPD" analysis distinguishes Cannabis sativa samples from different sources", aritcle, Forensic Sci Intl 79, 113-21, 1996.	
	V	KIMPTON, C. et al., "Evaluation of an automated DNA profiling system employing multiplex amplification of four tetra..i", Int. J. Legal Med. 106 (1994) 302-311.	
	W	KOHJYOUNA, M. et al., " Intraspecific variation in Cannabis sativa L. based on intergenic spacer region of chloroplast DNA," Biol. Pharm. Bull. 23 (6) (2000) 727-730.	

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(Use as many sheets as necessary)

## Complete if Known

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Sheet 4 of 5

## OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	X	LI, S.H. et al., "Isolation of tetranucleotide microsatellites from the Mexican jay <i>Aphelocoma ultramarina</i> ", <i>Mol. Ecol.</i> 6 (1997) 499-501.	
	Y	LINACRE, A. et al., "Detection and identification of cannabis by DNA", <i>article Forensic Sci Intl</i> 91 (1998) 71-76.	
	Z	PARK, S.D.E., "The Excel Microsatellite Toolkit"; Trypanotolerance in West African Cattle and the Population, University of Dublin, Ph.D. thesis (2001).	
	AA	PEAKALL, R. et al., "GenAIEx V5: Genetic Analysis in Excel. Population genetic software for ...". Australian National University, (2001) <a href="http://www.anu.edu.au/BoZo/GenAIEx/">www.anu.edu.au/BoZo/GenAIEx/</a>	
	AB	PEARSON, T., "Polygyny and extra-pair paternity in a population of southwestern willoflycatchers" ( <i>Empidonax traillii extimus</i> ), Northern Arizona University, (2002) THESIS	
	AC	PEREZ-REYES, M. et al., "The pharmacological effects of daily marijuana smoking in humans", <i>Pharmacol. Biochem. Behav.</i> 40 (1991) 691-694 (ABSTRACT)	
	AD	SCHULTES, R.E., "Man and marijuana", <i>Nat. Hist.</i> 82 (7) (1973) 58-63, 80, 82.	
	AE	SMALL, E.I et al., "The evolution of cannabinoid phenotypes in Cannabis", <i>Econ. Bot.</i> 29 (1975) 219-232.	
	AF	SMALL, E. et al., "A practical and natural taxonomy for Cannabis", <i>Taxon</i> 25 (4) (1976) 405-435.	
	AG	WATTS, D., "Genotyping STR loci using an automated DNA sequencer": in P.J. Lincoln, J. Thompson (Eds.), <i>Forensic DNA Profiling Protocols</i> , Humana Press, Totowa, New Jersev. 1998. pp. 193-208.	

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	AG	WEISING, K. et al., "DNA fingerprinting in plants and fungi", Boca Ration FL: CRC Press (1995) 51-53.	
	AH	WILKINSON, M. et al., "The detection and persistence of Cannabis sativa DNA on skin", article, Sci & Justice, 2000, 40(1): 11-14.	

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